

**Testimony of
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Before the
U.S. Senate Health Education Labor and Pensions Committee
April 21, 2009
“Empowering Workers to Rebuild America’s Economy and Longer-Term
Competitiveness: Green Skills Training for Workers”**

“People are the foundation of our organization, and through their efforts the goals and values of the corporation are attained.”

M. Chair, that one sentence summarizes our entire approach to business. And we believe both our company’s and our country’s futures are directly tied to our ability to rise to the challenge of ensuring every worker has the skills they need to succeed and support the emerging green economy. I’d like to thank you, and the entire committee for spending time on what I consider to be one of the most critical challenges facing our country today.

For five decades McKinstry has transformed the way in which we design, build, and optimize the built-environment. Our company originated in the Pacific Northwest as a high quality mechanical contractor employing union affiliated construction trades. We now have thirteen offices located in Washington, Idaho, Oregon, Colorado, Kansas, Minnesota, Montana, Texas and Wisconsin. Our company operates using core values that include developing legacy relationships with our clients, financial stability that is exemplified in our diverse offerings, and a caring for both the communities we serve and the people that we have the privilege to employ. We have weathered many economic cycles while holding true to these core values. Each economic downturn has reinforced our long term strategy to focus on services for the built environment that maintain employment or actually increase employment during economic struggles. Since the early 1990’s we have positioned our company to be diversified and able to withstand economic downturns, such as the one we now face. While continuing to focus on quality craftsmanship, over the last decade we have focused on making the built environment more energy efficient. We have expanded beyond the Pacific Northwest to provide our energy and sustainability services across the country. We are uniquely qualified to help our nation move quickly to put people to work making buildings more efficient, lowering energy consumption and reducing their associated carbon emissions. Our results have proven that a focus on green does create significant numbers of sustainable, family-wage and career track jobs while contributing directly to preserving or enhancing environmental quality.

McKinstry has received national recognition for leadership in energy efficiency and green job growth. It is our commitment to sustainable, design/build practices and for promoting a new direction for an energy efficient America that has helped make us this industry leader. Our efforts have resulted in the significant reduction of operational costs over the life of buildings, paying for themselves many times over, and improving the physical and working environment for occupants. We have also been recognized as a model for other companies in the promotion of green jobs, application of sustainable business practices, and innovation in reducing the country’s dependence on foreign energy sources. Our efforts in these areas have caught the attention of federal, state and

local policymakers as well as labor and environmental leaders. We are, therefore, well suited to assist in creating green jobs that promote short and long-term energy efficiency.

Over the last twenty years McKinstry has expanded our maintenance, operations, energy efficiency, renewable energy, and sustainability teams to over 500 highly skilled green collar jobs. These jobs include union service and commissioning technicians, energy auditors, engineers, sustainability experts, project managers, and a variety of support staff. These teams stabilize building operations by developing energy efficiency projects that are performed by construction trades professionals such as electricians, sheet metal workers, plumbers, pipe fitters and carpenters. Wherever possible, these projects are supplied by vendors providing American-made energy efficiency products.

Sustainable job creation has been an important, long-term strategy of McKinstry. This commitment to enduring employment opportunity has enabled us to provide a continuum of quality service to our customers and stable, diversified career prospects for our employees. Of note, McKinstry recently analyzed job creation resulting specifically from our energy efficiency projects. We have found that for every million dollars spent on making our built environment more energy efficient, twenty (20) jobs are created. This includes approximately nine (9) direct McKinstry project hires, six (6) employed indirectly through vendors and suppliers and another five (5) support positions. Our experience shows a ratio of four (4) to five (5) trade and vendor positions for every one (1) highly skilled green collar employee deployed on an energy project.

To validate our results, we reviewed the findings of the September 2008 Green Recovery Report created by the Center for American Progress (CAP) and the Political Economy Research Institute (PERI) and verified that their assessment aligns with ours. In 2008 alone, over 1,500 people delivered energy efficiency and sustainable solutions to schools, universities, hospitals, city facilities, and private commercial buildings on a national basis as a direct result of McKinstry's energy retrofit projects.

Construction projects focused on making existing buildings more energy efficient will create more durable, long lasting American jobs. With over 80 billion square feet of non-residential building stock and over 170 billion square feet of residential building stock it would take nearly a decade to deliver energy efficiency upgrades nationally. In the non-residential building stock, approximately five (5) billion square feet of new buildings are constructed, approximately five (5) billion square feet need major renovations, and about 1.75 billion square feet of existing buildings will be demolished on an annual basis. It is expected that over the next thirty (30) years, three-quarters of this built-environment will either be new or renovated. This indicates the long-term opportunities for employment in this particular market segment.

Energy efficiency will play a major role in carbon reduction in new buildings, as is the case in existing buildings. The American Institute of Architects (AIA) 2030 Challenge calls for all new buildings and major renovations to reduce their fossil-fuel GHG-emitting consumption by 50% by 2010. Continued incremental progress by 2030 is expected reducing consumption for new buildings to carbon neutral. As new technologies are created and scaled, we will need to revisit existing and new building stock to perform additional upgrades featuring the latest energy efficiency innovations. This strategy will be the most successful path to low carbon or carbon-neutral buildings at the end of the

first 10-year cycle and will create millions of sustainable employment opportunities or “green jobs” to accomplish this task.

Our People

McKinstry directly employs over 1,400 staff and union employees nationwide. We are considered the largest construction industry union employer in the greater Seattle area. In addition, we routinely employ over twenty (20) paid interns from various colleges, universities and vocational schools to help them learn about our business. Our employee base includes more than 100 engineers, 50+ LEED Accredited Professionals as well as Certified Energy Managers.

McKinstry is proud to be a Union employer of the very best and highly trained trades people in our industry. At this time we employ members of the following Unions:

- Plumber & Pipefitters / HVAC / Refrigeration
- Sheet Metal Workers
- Electrical Workers
- Sprinkler Fitters
- Carpenters / Painters / Tapers / Laborers

During most of 2008 McKinstry experienced unprecedented growth in our field union labor crews, maintaining an average of 1000+ during the year. Union workers from all regions of the United States sought work in Washington as their home states could not provide the union jobs they were trained to do. McKinstry became an employer to many of them during this period of time. While we are continuing to add professional engineering and sustainability staff, McKinstry has felt the downturn in the new construction economy with our current union field crew levels of 700. The increased focus on building energy efficiency and retrofits will not only create new green jobs that don't currently exist but enable redeployment of these skilled crews to those opportunities

Skills training is integral to sustainable job creation and to the technical requirements of building energy efficiency. Our union partners facilitate that skilled learning environment through a formalized apprenticeship training program typically lasting a period of five years. Training includes challenging classroom experience, hands-on instruction in their state of the art training facilities and on-the-job education through employment at McKinstry or other signatory contractors. Instructors are industry specific experts in their field and often are tenured McKinstry union employees interested in teaching others their craft. There is a rigorous entry process into these apprenticeship programs including testing in higher level math, reading, writing and critical thinking aptitude. Continuous education is a priority upon graduating from the apprenticeship and required to maintain many of their technical certifications.

McKinstry is actively engaged in this training process through countless staff hours contributed to union educational boards, Jointly Administered Training Committee (JATC) involvement and in providing instructors for these training opportunities for the union members. Skilled workers are critical for the success of our organization and to successfully meet the demands of an energy efficient built environment.

McKinstry is widely recognized within the industry as the preferred place to work for Union employees due to this training commitment, the availability of the best tools and equipment in the industry, the opportunity for innovative jobs, our steadfast focus on employee safety and their welfare and our encouragement of every individual to perform at their best.

McKinstry University

Continual training and a focus on innovation differentiates McKinstry and our employees. Energy efficiency and best practices in sustainability are central to the curriculum. McKinstry offers diverse training programs targeted at growing the capabilities of our people and, by extension, our company. Under the umbrella of McKinstry University, we offer learning opportunities in the following key areas:

- Technical Training
- Company and Industry Knowledge
- Professional Development: Communication, Supervision & Leadership
- Software Skills and Computer Aided Design
- Personal Development / Wellness
- Sustainability

Within the technical and industry curricula are a variety of options related to sustainability and/or green jobs. McKinstry University offers the “McKinstry Green Certification”, which includes becoming a LEED Accredited Professional in addition to mastering McKinstry-specific training in green best practices. Our commitment to our employees mastering this topic includes an eight (8)-week intensive preparatory class for the LEED certification. Additionally, McKinstry employees are actively involved in affiliations associated with sustainability by attending their continuing education conferences and speaking as industry experts on their training panels.

All of our union partners are actively adjusting and expanding their training curriculum to embrace new technologies and approaches required to support energy efficiency projects. The United Association of Plumbers & Pipefitters has launched a new Green Awareness Certification which covers topics such as energy efficiency, energy management, alternative energy, HVAC systems, solar systems and plumbing. Local 32 plans to submit to the State that this certification class be a Continuing Education Unit (CEU) requirement for the Washington State Plumbing License making this an industry priority. We are encouraging all of our employees to increase their energy efficiency skills and are actively supporting this training deployment effort.

Community Impact – Workforce Development and Education

Our commitment to training and building a sustainable pipeline of skilled workers does not end with our internal efforts and union partnerships. McKinstry employees actively serve on numerous workforce development committees and in various programs related to workforce development, green jobs training, continuing education, and classroom teaching and/or classroom curriculum planning. Committees we serve on in addition to the JATC’s described above include STEM (Science, Technology, Engineering, and Mathematics), Partnership for Learning, Seattle Vocational Institute Board, SMACNA Education Committee, Green Building Council, Northwest Energy Alliance and the MCAWW Academic Relations and Education Committees to name a few. Through these committees and programs, McKinstry helps determine workforce needs, helps to promote

industry awareness, facilitate recruitment of interns and employees, and build collaboration with local training facilities, vocational technical training schools, colleges and universities for future workforce placement. This enables us to proactively influence the direction of educational curriculum to support the diverse skills necessary for the green workforce of the future.

McKinstry is also active in promoting careers in our industry in the public school system. An example of that involvement is The Architecture, Construction, and Engineering (ACE) Mentor Program of America, Inc. ACE is a unique partnership among industry professionals - architects, interior designers, engineers, construction managers, college and university representatives, and other professionals from related corporations and professional organizations — who work together to attract young people to their professions. The program’s mission is to enlighten and increase the awareness of high school students to career opportunities in architecture, construction and engineering and related areas of the design and construction industry through mentoring; and to provide scholarship opportunities for students in an inclusive manner reflective of the diverse school population. McKinstry employees actively participate in these mentoring opportunities as yet another avenue to build a future pipeline of engaged, technical workers.

A particularly illustrative example of McKinstry engagement with youth in the secondary school system is our partnering relationship with one of our customers, Northshore School District, in their alternative High School program, Secondary Academy for Success (SAS). The program includes endeavors with Career Speakers, Human Resources, K-20 Running Start and Public Relations. This partnership exposes 11th and 12th graders to the variety of opportunities in our green economy. Our first encounter with students provided a “blue”, “white” and “green” collar perspective on what it takes to start a career in that field. Our speakers included a “blue collar” HVAC Technician from our Service Department, a “green collar” Knowledge Response Center Remote Operation Center Manager and two “white collar” Computer Aided Drafting and Design Drafters. Students gained visibility into the variety of options that are available to them and insight into the basic skills needed to start down that career path. This program targets students that may or may not be on a typical college track and provides them understanding of the critical thinking skills and technical aptitude in math and science required to be successful. Students are exposed to ways in which their own school district has focused on energy efficiency and the environment. This innovative teaching method has created a functional learning lab for students in the midst of a fully functioning, energy efficient building model.

McKinstry’s Corporate Development team and SAS have also developed a program that will help students identify jobs they are interested in pursuing, resume writing guidelines and important interviewing skills. While the K-20 program is still in its infancy and evolving, the focus revolves around how to best prepare students coming out of High School, Community Colleges and four-year institutions to enter into the workforce with a company like McKinstry. Members from our executive team have joined Cascadia Community College and University of Washington Bothell to pioneer this effort.

As McKinstry continues to expand, we are exploring the creation of a combined engineering/operations hub and regional training center co-located with one of our other offices. The intent of this concept would be to establish an engineering center and

operations support unit at the location with 50-100 staff to support the design and execution of projects throughout our network of locations. Linked to this hub would be an onsite training center jointly operated with local universities or colleges, operating a combination of credit curricula, technical training, co-op positions and a paid internship program distributed through our various locations. Conceptually it is envisioned that the training center would serve 50-100 participants per year, with 20 offered summer internships, 20 offered 6 month co-op positions for their junior/senior years, and ultimately 25-50 being offered full time positions at McKinstry each year. This serves as another example of McKinstry building a pipeline for future green jobs for an energy efficient economy.

Skills

The design and construction industry is an economic driver in our region and, although the recent economic downturn has had a significant negative impact on growth, it is expected that the commercial sector will return to a pattern of slow growth in the fourth quarter of 2009. In addition, growth will be spurred through the investment of stimulus funds in retrofitting commercial and residential buildings for greater energy efficiency.

As the buzz about “green jobs” is growing louder every day and fueled by new federal funding, cities, states and the federal government need to invest in identifying the specific skills necessary and the strategies to help people develop those skills. New and evolving green materials and techniques create knowledge and skill gaps in the current workforce.

The more technical the skill set an employee holds, the more sustainable their job is. For our workforce to succeed and maintain enduring jobs in the environment we are heading rapidly into, we believe the skill set necessary includes the following:

- Multi-design engineering
- Value Engineering (function and use vs. true cost)
- Adeptness in sustainable construction processes
- Familiarity on the value and principles of energy conservation
- General knowledge on alternative energy sources
- Technical knowledge and skills related to “green management,” which includes the implementation of conservation practice processes, assessment of facilities and review of energy consumption levels
- Technical skills (Math and Science)
- Life cycle assessment (decision-making function)
- Knowledge of "green business methodologies" including carbon modeling and environmental cost accounting
- General environmental awareness

Demand for technically minded employees will exceed supply as the global green industry continues to grow. This disconnect will make it essential that we retool our work force to take on these emerging technologies. This will help lead the way in clean technology and the green economy while ensuring job sustainability. We need to continue to refresh the traditional trades with training in 21st century knowledge and skills.

With the need to retool our workforce in mind, McKinstry and the Workforce Development Council of Seattle-King County are currently hosting a Green Design and

Green Building Skill Panel which was formed first quarter of 2008 and includes 25 leaders from business, labor, education, economic development, government, and workforce development. The panel will have an important impact on identifying and addressing the sector's workforce challenges to prepare for both the greening of the sector and future growth.

The panel's goal is to identify workforce demands in the sector and undertake initiatives that can effectively prepare the existing and future workforce to meet those needs. The panel has zeroed in on critical needs and initiatives in these three areas:

- Preparing the workforce for emerging, new green jobs
- Up-skilling the existing workforce, and
- Integrating green knowledge across industry sectors and the building trades

In summary, I would like to leave you with this thought as you continue to explore this issue as a Committee.

Our ability to succeed as McKinstry or as any company in the green economy is directly related to the number of skilled, competent individuals who are available to perform this groundbreaking work. Without these workers – and a constant upgrading of their training and skills – our efforts will fail. We believe that without this commitment to continuing education, workforce development, and understanding the technical needs of energy efficient built environment for our country that the goal of creating sustainable, family wage, green collar jobs will fail. McKinstry is committed to that belief and has shown that commitment through our historical and continuing activities in this arena. We think it is vitally important to capture the imaginations of those just entering the workforce about the tremendous opportunity in this new, energy efficient, green economy.

We think that good policy at the Federal, state, and local level can support these goals, and that's why I'd like to thank the Committee – and especially you - for your time, and I appreciate and applaud the attention and focus you've brought to this critical issue.